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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,296	08/31/2000	John R. Hind	RSW9-2000-0113-US1	2854
7590	04/08/2004		EXAMINER	
Jeanine S Ray-Yarletts IBM Corp Dept T81 Bldg 062 P O Box 12195 Research Triangle Park, NC 27709			HILLERY, NATHAN	
			ART UNIT	PAPER NUMBER
			2176	2
DATE MAILED: 04/08/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	09/652,296	
Examiner	HIND ET AL.	
Nathan Hillary	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 31 August 2000.
2a) This action is **FINAL**. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-38 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) 12-20, 30 and 32-35 is/are allowed.
6) Claim(s) 1-11, 21-29 and 36-38 is/are rejected.
7) Claim(s) 31 is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
10) The drawing(s) filed on 31 August 2000 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Application filed on 8/31/00.
2. Claims 1 – 38 are pending in the case. Claims 1, 11, 12, 16, 18, 21, 25, 27, 30, 34, and 36 are independent.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1 – 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention amounts to functional descriptive data stored on computer-readable media. Because the claims fail to set forth any interaction with the claimed data structures, the claimed invention is non-statutory.
5. Claims 21 – 29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention amounts to functional descriptive data. Because the claims are means plus function, the claimed invention is considered software *per se* in light of the specification (page 20, lines 17 – 20).

Claim Objections

6. Claim 31 is objected to because of the following informalities: incorrect dependency. After careful examination of all of the claims, the Office interprets that Applicant meant for claim 31 to be dependent from claim 30, based on the similarity of the claims, thereby, making claims 30 – 33 parallel to claims 12 – 15 and 21 – 24. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 36 – 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. The term "efficiently" in claim 36 is a relative term which renders the claim indefinite. The term "efficiently" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Consequently it is unclear how the method is transforming the structured document. The Office recommends that "efficiently" be removed from the claim.

10. **Regarding dependent claims 37 and 38,** the claims are rejected for fully incorporating the deficiencies of the base claim(s) from which they depend.

Allowable Subject Matter

11. Claims 12 – 20, 30, and 32 – 35 are allowed.

12. Claim 36 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

13. Claims 37 and 38 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: When the claims are taken in their totality, they describe a method of representing a document, specifically XML, using arrays. The prior art specifically Jamtgaard et al. (US006430624B1) teach that *in more detail, the intelligent harvester 22 may receive the content and generate a relational data structure 24 that corresponds to the content as described below in more detail. The data structure containing the content in a relational format in accordance with a preferred embodiment of the invention is a proprietary relational markup language known as RML. RML is an XML based language which has the advantage of permitting the easy mapping of the content into a tree structure by the tree synthesizer 26 so that the tree synthesizer may output a typical document object model (DOM) 28. The DOM is a common object model used to manipulate markup such as HTML such as it disclosed on the W3C web site at <http://www.w3.org>. Although it is typically used for manipulating HTML or XML, it also provides the tree structure needed by the layout engine as described below during the tree analysis functions. Generally, a tree data structure is a method for representing a hierarchy of data using tree diagrams formed from nodes and line segments between the nodes. This may be a bit confusing because the DOM's tree structure may be used for both its intended purpose of storing the HTML markup contained in atomics, but also as a way of storing relational information about those atomics ... (Column 5, line 54 – Column 6, line 10).* However, the claims further describe the aforementioned method by generating various arrays for every type of component within the document and storing specific information about each type of component into the particular array.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Hillery whose telephone number is (703) 305-4502. The examiner can normally be reached on M - F, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (703) 305-9792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JOSEPH FEILD
SUPERVISORY PATENT EXAMINER

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